

CLAIMS

We claim:

1. A plant or plant seed comprising a heterologous nucleic acid sequence, wherein said heterologous nucleic acid sequence, or the expression of said nucleic acid sequence, decreases activity of REF1 in said plant or said plant seed.
2. The plant or plant seed of Claim 1, wherein said heterologous nucleic acid sequence, or said expression of said heterologous nucleic acid sequence, results in reduced sinapine content in said plant or said plant seed.
3. The plant or plant seed of Claim 1, wherein said heterologous nucleic acid sequence, or said expression of said heterologous nucleic acid sequence, results in reduced hydroxycinnamic acid content in said plant or said plant seed.
4. The plant or plant seed of Claim 3, wherein said hydroxycinnamic acid is ferulic acid.
5. The plant or plant seed of Claim 1, wherein said plant or plant seed is a Brassica or a *Sinapis alba* plant or plant seed.
6. The plant or plant seed of Claim 5, wherein said Brassica plant or plant seed is a *Brassica napus* plant or plant seed.
7. The plant or plant seed of Claim 6, wherein said *Brassica napus* plant or plant seed is a canola plant seed.
8. A method, comprising:
 - a) treating a plant or plant seed such that treatment decreases expression of an *REF1* gene in said plant or plant seed; and
 - b) growing said treated plant or plant seed.

9. The method of Claim 8, wherein said growing results in a plant with reduced sinapine content.

10. The method of Claim 8, wherein said growing results in a plant with reduced hydroxycinnamic acid content.

11. The method of Claim 8, wherein said treating comprises transfecting said plant or plant seed with a heterologous nucleic acid, wherein said heterologous nucleic acid, or the expression of said heterologous nucleic acid, is able to decrease expression of said *REF1* gene.

12. The method of Claim 11, wherein said heterologous nucleic acid sequence encodes a nucleic acid product which interferes with expression of said *REF1* gene in said plant or said plant seed.

13. The method of Claim 10, wherein said hydroxycinnamic acid is ferulic

14. The method of Claim 8, wherein said plant or plant seed is a Brassica or a *Sinapis alba* plant or plant seed.

15. The method of Claim 14, wherein said Brassica plant or plant seed is a *Brassica napus* plant or plant seed.

16. The method of Claim 15, wherein said *Brassica napus* plant or plant seed is a canola plant seed.